Extension Service Review

VOLUME 17 MAY 1946 NO. 5

The hinge of the gate

M. L. WILSON, Director of Cooperative Extension Work

In observing Home Demonstration Week, Director Wilson calls attention to work well done and points out some of the problems still ahead.

There is one matter of policy to which all true believers in democracy subscribe. It is that the farm family is the hinge of the gate that leads to the kind of rural democracy that has brought and maintained steady progress toward an ever-ascending standard of living among rural people in the United States.

National Home Demonstration Week, May 5–12, 1946, gives recognition to the contributions made, in a period that extends beyond 30 years, by two very important groups in our rural society. The first of these is the corps of many thousands of rural women leaders who have through the years served as volunteer local, community, county, and State home demonstration and 4–H Girls' Club cooperators. They have sensed the problems of rural families—and they have done something to meet them.

The second group comprises the relatively few professionally trained State and county agents who have worked with the volunteer groups in bringing new developments in homemaking science within the reach of millions of farm families in the Nation. They have done, and are doing, such a good job that Congress has, through the Bankhead-Flannagan Act, urged that more be cooperatively employed so that there is no rural county without their services. Among some of the essential jobs being done in home economics extension programs are those of meeting problems of farm family food supplies; encouraging farm fruit and vegetable gardens; food preservation and food preparation; and safety on the farm and in the home.

As farm and other rural women—and that means all rural families—take up the task of recovery from a war which brought supreme sacrifices to many, and great sacrifices to all, it is important that the home demonstration cooperators of the Nation get together in their respective communities to take up the problems that lie ahead. These may vary in a degree, depending on local situations. Many of the problems will center on the family and home, in improving living conditions, including improved nutritional standards, better clothing, better marketing services, homes and housing conveniences suited to the needs of families who are to live in them.

Others will be community, county, State, and Nation-wide problems concerning health, roads, rural electrification, recreation, and improved educational opportunities to meet the needs of children and the oncoming generation of rural youth. Still others will deal with matters of moral and spiritual advancement and cooperation in efforts to solve future international problems through peaceful means.

Now that the period of wartime sacrifices has ended, farm families are looking forward to a gradual realization of those higher standards of home and living which they have a right to expect in an advancing civilization. Cooperative home demonstration extension work, through local cooperators and resident home demonstration agents, should plan and organize its continuing services along lines that will best help rural families find a practical and intelligent way toward meeting immediate problems of better living.

Secretary Anderson says:

It is fortunate that we Americans realize that, amid the problems of war and readjustment, our greatest strength and hope for the future lie in our homes. That is why I am happy that you in home demonstration work are focusing our attention on the contributions of the rural home to progress and world peace during National Home Demonstration Week, May 5–12.

Representing the United Nations:

Freeing the people of all lands from the fear of hunger is the high goal of the Food and Agriculture Organization of the United Nations. . . .

The homemaker is the most important link in the long chain of food handlers from the farm to the dinner table. Her ability to get the food she needs for her family, to select the right foods for health, to prepare foods properly for eating, and to preserve them for future use—these are the end results toward which all the rest of our activity is aimed.

And so, in this National Home Demonstration Week, I am happy to greet the rural women of America and to offer my congratulations to them for the progress they have made toward accomplishing the goals for better living which the FAO hopes may be made a part of family living throughout the world.—*Sir John Boyd Orr, Director General.*

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What is extension responsibility in the field of agricultural policy?

PAUL E. MILLER, Director of Agricultural Extension, Minnesota

Director Miller impressed extension workers attending the national outlook conference with his discussion on extending economic information to farm people. Some of the forward-looking ideas he presented there are in the following article.

As an Extension Service we have the very real responsibility of bringing to farm people the basic economic information that they will ask for in their consideration of the many proposals that are being advanced to maintain agricultural income after the present support prices are withdrawn. In bringing this kind of information to them it is not our province to tell farmers what to think or how to think, or to give them ready-made answers. It is our responsibility, nevertheless, to give them the kind of information that is essential to a full consideration of the basic facts that must underlie any agricultural policy. In so doing, Extension, as the educational arm of the Department and the land-grant colleges, will be carrying out an assignment which falls clearly within its responsibility. It is, without reservation, the most important assignment that should engage our resources in the years immediately ahead. This is true because the framing of an agricultural policy is the most important problem facing farm people.

Educators Recognize Problems

The importance of this problem was recognized in the recent report of the Policy Committee of the Land-Grant College Association. On a broader scale than ever before they define the obligations of the land-grant colleges in this field. They have challenged the Extension Services so to organize themselves that they can undertake their full share of this task. Their report makes the following positive statement concerning postwar extension teaching:

"It is especially necessary that those who are responsible for extension policy make certain that in the years ahead their programs give emphasis to these public policy questions. In most States this decision will require broad adjustments in the whole extension program and will necessitate the allocation of more personnel and funds to this field. It will also mean that special attention be given to determining how this type of educational material can best be made available to farmers and families."

This is a responsibility that the Extension Service cannot take lightly. It will call for courage and conviction; but well done, it will be the most significant contribution that extension workers can make to the welfare of farm people in the immediate future, and one that will have an even greater influence in the years ahead.

If we are to accept this challenge and seriously attempt to carry out this important assignment, it will be necessary for us to take stock of our resources and begin to strengthen ourselves where necessary. Very frankly, we will have to admit that we are not as well equipped as we should be at the present time to assume educational leadership in presenting economic information to farm people. Too many of our agents lack the necessary basic training in economics, political science, and related subjects. They are not trained to discuss these subjects with the same confidence with which they discuss livestock and crop production, plant and animal diseases, and farm management.

If the handling of economic information is to assume an increasingly important place in the agent's program, and I think it is, we must take the necessary steps to better prepare him for such work. From the long-time viewpoint we must begin now to overhaul the undergraduate training for county extension work. We must ask for more than the 4-year training period. A 4-year course is no longer sufficient to equip the present-day extension worker. He needs the present 4-year course to get his basic training in the agricultural sciences; and he needs at least an additional year to give him the necessary foundation in economics, political science, marketing, and distribution.

There is much that we can do now if we have the purpose to do so. For one thing, we can strengthen our specialist staff in economics and marketing. This obligation is pointed out to us in the recent Bankhead-Flannagan legislation. Strengthening the specialist staff is a matter of immediate concern and is perhaps the first step that we can take that will be of positive help at the present time.

We have other tools with which to work. We have personnel in all agricultural counties in the United States. We can do much through in-service training to strengthen our county workers. We have at our disposal the resources of the land-grant colleges and the Department of Agriculture, and we can call upon the subject-matter people in our respective colleges to help train our present staff. We also have the confidence of farm people. They have come to recognize the extension worker as the source of unbiased information. We have large numbers of intelligent volunteer leaders. We have a far-flung organization that reaches down into almost every rural neighborhood.

We Have Great Resources

These are all resources of great value. Many of them have been years in the building. If we will use the resources now at our disposal, imperfect though they be in some respects, we can make a worth-while contribution and be reasonably effective in handling economic information and discussing economic subjects with our farm people.

I am convinced that this is possible because of some experiences we have had in our own State. During the past several years one of our specialists has conducted what we called a group discussion project with farmers on economic subjects. One of these topics dealt with the farmer's interest in foreign trade and specifically the reciprocal trade agreement policy. Recently one of our farm organizations was asked to sound out farm opinion on the continuation of the reciprocal trade agreement program.

When they polled all of their county officers as to farmer thinking on this question, they were told that Minnesota farmers were in favor of a continuation of the reciprocal trade agreements program on the basis of its contribution to increased total trade and larger farm markets. We took some pride in the results of this poll because we thought it demonstrated the effectiveness of the discussion method of presenting educational material on economic subjects. Given the facts and an opportunity to discuss them back and forth, farmers will generally come up with an answer that is not based solely upon selfish interest but, rather, is keyed to the national welfare.

We have also carried on similar discussion on the subject of inflation, especially in its relation to land values, as, of course, you have done in your States. We believe that our farmers are holding the line reasonably well on farm land values and that their judgment is based on sound economic information. I think we can carry on the same kind of discussion on such questions as parity prices, support prices for agricultural products, the relation of consumer purchasing power to farm prices, and the other subjects that are fundamental to an intelligently conceived agricultural policy.

If we are to go into this program, it will mean much work on the part of our economics staff to develop subject-matter outlines for discussion meetings, to train our county personnel in using the discussion method and in handling the subject matter, to strengthen our specialist staff to give leadership to this program, and to enlist the full support and cooperation of the subject-matter people in our respective colleges.

We are in a transition period as far as extension is concerned. The pressure for maximum war production is past. Efficient production will, of course, always be a major extension goal. Soil conservation, farm management, and marketing will assume increasingly important places in our program, but above all of these the major issue now confronting farm people is in the field of agricultural policy making. If we do not accept this responsibility in extension, we will be abdicating the most important educational job to be done with farmers in the immediate postwar period. Upon the right kind of a policy that will bring to agriculture its rightful share of the national income will depend the standard of living that we can expect for farm people. It will determine how much education their children will receive, what contributions they can make to society in general, the extent to which they can be the customers of industry, and whether or not a share of the capable young people growing up on our farms will continue to look to farming as a desirable occupation.

House planning by radio

■ "Tomorrow's Farm Home"—or house planning by radio—is the latest program series used on one of Purdue University's regular women's programs, "Homemakers' Club of the Air," directed by Mrs. Virginia Berry Clark. As the University Radio Station, WBAA, has good coverage of most parts of Indiana, the program was planned to help Indiana families who cannot be reached rapidly enough through the Extension Farmstead Improvement Schools.

The radio series consisted of 15-minute interviews every Monday for 13 weeks—starting in early January when farm families have more time for listening. The same specialists who conduct the Farmstead Improvement Schools helped plan the programs and were the most frequent guests on the radio series. They included specialists in landscape architecture, agricultural economics, agricultural engineering, home economics, and forestry. Some additional extension specialists and research staff members assisted with the radio programs.

In general, the programs were confined to the planning of the house itself. However, the first broadcast was concerned with how family savings should be invested—whether in a house or in a barn. Farmstead arrangement and landscaping were also discussed at the beginning of the series.

The first broadcast about the house considered the question of whether to remodel or build new. As there will be more remodeling than new building in Indiana, problems of remodeling were given greater emphasis in the later programs. Included in these were special discussions on the homemaker's workshop, living areas, sleep and rest areas, utilities, heating, building materials, and interior finishes. The group of programs closed with the topic, "Farming as a Mode of Living," a summary of the advantages of comfortable living on the farm.

As for listener response, a number of leaflets and bulletins were offered on some of the broadcasts. Requests for them were four to five times greater than requests for other timely material offered on the same radio program. In every discussion, listeners were encouraged to plan their remodeling work on paper—making several plans and choosing the best. Although personal service was not offered, some requests for help in making plans for a specific house came in as a result of the programs. These questions were referred to county extension workers who may receive help from State specialists. Many of the questions can be answered by county workers, for they have had the help of specialists in State and district conferences.

■ GOV. R. GREGG CHERRY of North Carolina announced in January the appointment of a 33-man steering committee, representing business and professional interests in every section of his State, which has been detailed to evolve plans for the development and guidance of rural industries and services in North Carolina.

The committee, which includes former Gov. Melville Broughton, is headed by Dr. L. D. Baver, director of the Agricultural Experiment Station at State College. The committee met in February to complete formal organization of plans for the promotion of rural industries, a mission launched in November at a session of the State Rural Industries Conference.

To visualize the new house

K. H. HINCHCLIFF, Assistant Professor of Agricultural Engineering, Illinois Extension Service

Appeals from farmers and homemakers to extension workers for housing information have multiplied greatly since the end of the war—as was to be expected. Housing specialists are being called upon to give more help in a variety of ways.

In Illinois the procedure has been to strengthen the hand of county representatives and leaders by providing them with low-cost mass-produced visual aids. With some background training and these aids, the local worker can usually do a creditable job of presenting housing information.

Techniques in producing these visual aids can be adapted to the use of standard blueprinting equipment. Models and charts have been the two principal types of aids used in Illinois. The policy has been to include a model wall chart, discourse outline and working drawing as a "package" unit. These provide the material for either method demonstrations or office exhibits.

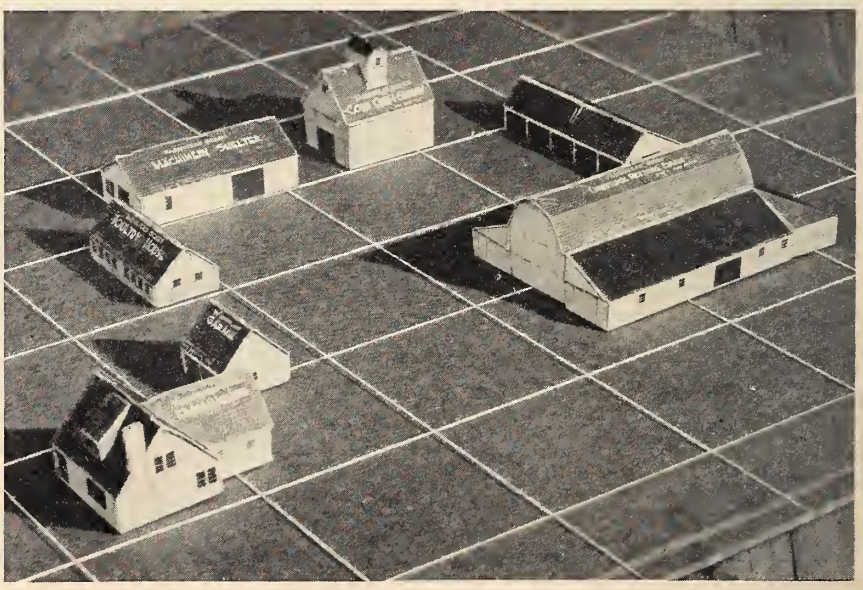
The package units now being used include models of a farmhouse, a farmstead arrangement, and a movable hog house. Kitchen- and closet-planning units are being prepared. The farmhouse unit is patterned after U. S. D. A. Plan No. 5542; and the demonstration features compactness, kitchen-dining space relationship, storage space, ventilation, and room proportions. The aim is to stress principles rather than specific plans.

The complete farmstead set was produced to help farm people visualize the location of the house in relation to other farm buildings. All the building models were constructed at the same scale, one-eighth inch to the foot. The models include a 1½-story farmhouse, garage, general barn, machine shelter, livestock shelter, granary, and poultry house, with alternates for use in various types of farms. Instructions are included for preparing a piece of wallboard to serve as a base or grid on which to arrange the buildings, drives, fences, and walks. The discourse information provided as part of the package unit was prepared jointly by the agricultural economics, horticulture, and agricultural engineering departments.

Farm people apparently find inspiration, or at least fascination, in setting up the models to represent their own farmsteads. In this way they can visualize future additions which they wish to make, and the outline helps them to keep in mind the special consideration for each new building. Local leaders can demonstrate the principles of farmstead planning before fairly large groups by arranging the models on a movable blackboard tilted toward the audience. The exhibits will stay in place even at a rather steep angle if the bottoms are cemented to cheesecloth or muslin.

It is not difficult to prepare these

Prof. Hinchcliff demonstrated his chalk-talk board and model buildings at the quarterly extension conference of the staff in Washington. The chalk-talk board with its spotlight and box for the chalk attached folds into a package that is easily carried.



visual aids, but experience has shown the advantage of using certain techniques. Simplicity of design is the keynote. There should be as few pieces as possible, with a maximum number of folds to make the models strong and durable.

Sometimes county workers purchase the visual aids in the cheaper unmounted form and have the finish-up work done by their office staffs, but most of them prefer to receive the models ready for use.

The chalk-talk board is ideal equipment for a demonstrator, whether he uses it for its intended purpose or not. As it has legs and a splotlight, it can be used as a stand for charts, posters, and the like. The spotlight is invaluable in focusing attention on the subject. For chalk-talk purposes the board has a partitioned crayon box permanently attached in a convenient location. Having all equipment attached to the board eliminates the danger of forgetting some necessary detail.

Inasmuch as most people seem to enjoy watching ideas develop, a set of slidefilms, including some color slides of chalk-talk subjects used by specialists, has been prepared for loan to county offices. The sets include script for use with each slide.

The house-planning game is another device that has helped county workers guide farm families in their planning. Essentially it is a set of cardboard room plans of average size and shape. Guidance is provided by means of a score sheet to evaluate the resulting arrangement.

Low-cost demonstration equipment as prepared for use in Illinois has served two purposes: First, using local leaders to teach by eye as well as by ear makes it possible to provide more subject matter for those who desire it and also gives greater opportunity to attend to individual problems. Secondly, when used as an exhibit in farmstead planning, the visual aids serve as an eye-catcher to direct attention to general problems. Making it possible for farm people to visualize good design improves the chance for good design to be adopted.

Tobacco growers expand acreage

■ Tobacco growers of the five counties of southern Maryland face both a golden opportunity and a crisis in production of their crop this year, says Dr. T. B. Symons, director of the Maryland Extension Service. The demand calls for all the type 32 Maryland tobacco they can produce for the making of cigarette blends, for although production of the flue-cured and burley tobaccos used in cigarettes has increased since 1940 by about 43 percent, production of Maryland-type tobacco has stood still.

As a result, Maryland tobacco, prized for its quick-firing quality in the cigarette, has dropped from about 4 to 1 percent of the standard tobacco blends. Buyers are anxious to get Maryland type 32 tobacco, but if the supply does not increase, there will not be enough of this special type to make it worth while for cigarette manufacturers to purchase.

This year the Extension Service, together with the Agricultural Experiment Station, is working on a concerted program with five or six thousand tobacco growers in Anne Arundel, Calvert, Charles, Prince Georges, and St. Marys Counties to increase the acreage of Maryland tobacco from its static 38,000 acres to at least 50,000 acres. Land is available; in 1945, there were 76,000 acres of unused cropland and 123,000 acres of plowable pasture in the five counties. Grower committees have been chosen in each of the five tobacco-growing counties to study the production problems and the research needs of the tobacco industry. Anne Arundel County growers already have planned a 30-percent increase in acreage.

In a series of meetings this winter, requested by the growers, they have been studying the ways to produce more and better plants in plant beds; methods of control of blue mold, a serious tobacco disease that wiped out a huge part of the tobacco plant supply in 1945; and better methods of planting, growing, harvesting, and marketing a crop which takes a huge amount of hand labor.

Negro work expands

More than 30 million quarts of food were canned last year by Negro farm club women and 4–H girls, says a recent report on extension work among Negroes in the South by John W. Mitchell, extension field agent of the U. S. Department of Agriculture.

According to the report, Negro farm women and 4–H'ers of North Carolina led the South in the average number of quarts of food canned per person. In that State, 25,000 club women and girls canned 4,534,000 quarts of fruits and vegetables, or 180 quarts each. In Alabama, 31,000 club women and girls canned and otherwise preserved $2,505,700 worth of food. Arkansas club members canned 2,888,000 quarts of fruits and vegetables; Louisiana members canned 2 million quarts of food, and Texans canned 3,300,000 quarts of food.

The report points out how county and home demonstration agents stepped up their program and worked with more families, helping them to increase their wartime production of food.

In Oklahoma, for example, 4,300 families improved their diet last year, and 3,800 South Carolina club women sold $92,500 worth of poultry and eggs and $32,500 worth of milk. In one Tennessee county, the Negro farmers produced $200,000 worth of food. In Mississippi, Negro farmers sold $302,000 worth of milk and $105,000 worth of poultry and eggs.

The report indicates a significant wartime shifting over partly from cotton and tobacco to food crops. These crops have played an important part not only in improving the diet of Negro farmers but also in providing year-round cash income.

Also included in the report is the enlarged list of Negro extension workers numbering 784 (including the emergency workers) who have helped 671,586 Negro farm families to step up their production of food. Mississippi leads the list with 134 permanent and emergency agents serving 159,000 Negro farm families. Texas comes second with 113 agents for its 52,000 Negro farmers, and North Carolina third with 88 agents for its 57,000 Negro farm families. 4–H enrollment was 277,563.

Two birds with one stone

Writing a local poultry story for magazine, with help of specialist, supports county extension program and brings agent up to date on poultry practices.

■ Washington's county extension workers monthly tell a story of successful poultry operation to farmers of their State through the medium of an illustrated article in Washcoegg, the magazine published by the Washington Farmers' Cooperative.

The arrangement which makes this possible has been in effect for 4 years, and 39 poultry success stories have been carried to virtually every major poultry producer in the State, as the magazine has a circulation of 30,000 copies. Every one of these stories was developed by a county extension worker and appeared in the magazine under his name.

The program of cooperation started in March 1942 when an agreement was made with Washcoegg publisher that the magazine would reserve space every month of the year (except February, when the annual edition is published) for a county agent poultry success story of from 700 to 1,000 words with illustrations.

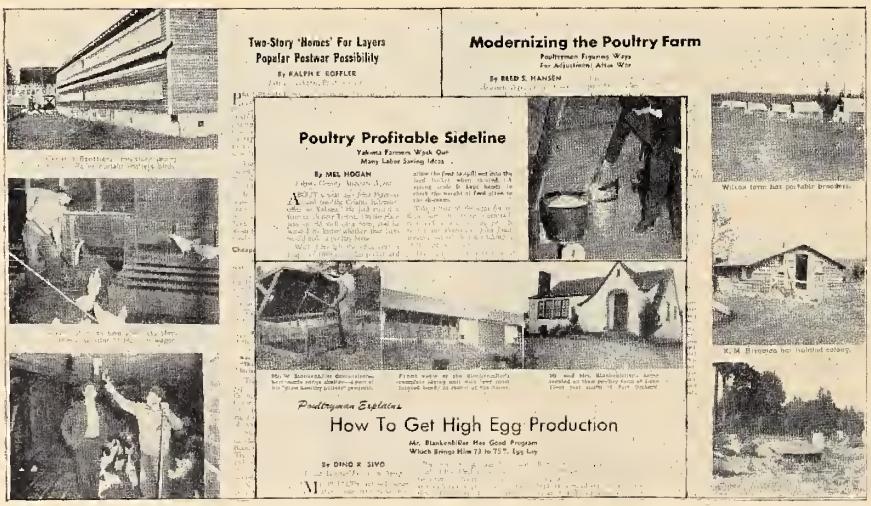
Fred W. Frasier, State extension poultryman, has charge of the overall planning of the articles. All stories are planned 1 year in advance, giving the agent ample time to work with the farmer, study the operations, and discuss plans for the article. At some convenient time during the year, Frasier and the agent preparing the story make a trip to the farm, look over the situation, discuss feature angles, and take pictures to be used for illustrations.

The pictures are taken by Frasier who has them printed and returns one copy to the agent for use with the story and another to be given to the farmer.

With the pictures at hand and the data gathered, the county agent writes up the article and sends it to the poultry specialist for checking as to technical information. The story is then forwarded, under the agent's name, to Washcoegg for consideration for publication.

The value of the stories to farmers is shown by a recent comment by Richard Bell, editor of Washcoegg and former Washington acting extension editor, who said that on a recent visit to a successful poultry farm he was told that virtually all the plans had been derived from Extension Service information published in the magazine.

The value of the articles is not always localized, as is shown in results of a story published during war years by Dino Sivo, Kitsap County agent, concerning the use of lime in litter for saving labor and litter cost. The lime kept the litter dry and usable longer.



The story appeared at a time when labor and litter were critically short and was based on 8 years successful use of the practice by the farmer. The practice of using lime in the litter was practically unknown to the industry as a whole at that time.

The interest in the article resulted in a series of experiments at the State College branch experiment station in Puyallup. These experiments resulted in a college recommendation that the use of lime in litter was not only satisfactory but a very economical method of litter management in poultry laying houses. During the winter of 1945–46, it is estimated that 50 percent of the poultry industry of the State followed the practice at a saving of approximately a quarter of a million dollars.

Not only do the stories have a great value to poultrymen, but they are also of benefit to the agent writing them. They give him training in preparation of such material and the careful study of the subject matter necessary, and add to his prestige in the county. No agent has ever turned down an opportunity to write one of these stories.

Poultry course for the blind

Nine students enrolled for the 9 months' poultry course for blind adults at the Agricultural and Mechanical College of Texas. The poultry course is only one of many job-training services offered to the blind, but so far as is known it is the only agricultural course of its kind being offered in the Nation at the present time. H. L. Matthews, instructor of the course, says his students are learning to handle all the necessary jobs on the poultry farm. They can vaccinate and cull chickens, clean poultry houses, and are especially adept at grading eggs.

Two of the students took part in a broadcast on January 31. The purpose of this broadcast was to acquaint the adult blind of Texas with the help the State Commission offers. It aids them in making emotional and intellectual adjustments to blindness, provides vocational training, and directs the handicapped to sheltered workshops sometimes called Lighthouses for the Blind.

Agents devise methods for improving Minnesota's pastures

HAROLD B. SWANSON, Assistant Editor, University of Minnesota

Pastures are finally receiving their due recognition in Minnesota. The Extension Service, with the cooperation of farm organizations, seed and supply firms, and the farm press, recently intensified its drive for better pastures. In 1944 Paul M. Burson, extension soils specialist, and Ralph Crim, extension agronomist, were chosen chairman and secretary-treasurer, respectively, of the Minnesota Pasture Improvement Committee. This over-all committee planned a pasture-improvement program for the State, and then county agents and local committees of farmers in more than 40 counties developed the program on a local basis.

Recently, a recognition dinner and conference was held at St. Paul for the Minnesota farmers who participated in the program. An all-State pasture team of 5 men was selected, and 70 farmers were presented certificates of merit for their work. Latest developments in the field were discussed, and individual farmers told how they improved their own pastures.

Briefly, the plan calls for the county agent and local committees to work with the individual farmer in planning a pasture-improvement program for his own farm. The farmer, in turn, agrees to carry out certain recommended practices and to submit monthly reports indicating his success in increasing yield and palatability in his pastures. Road signs indicate the cooperators in the area, and their farms and pastures serve as examples to the rest of the neighborhood.

In Clay County in the Red River Valley, County Agent G. E. May's program increased the acreage of a good grass-legume mixture from almost nothing in 1941 to 12,000 acres in 1945. May had noticed that farmers in the area were having poor luck with their pastures, mostly sweetclover alone. Palatability of the pastures late in the season was low; stands were poor, cattle were bloating; and a host of other troubles were cropping up.

In 1941, May set out nine experimental plots on nine different soil types. These plots were seeded to a grass mixture of 4 pounds of meadow fescue, 4 pounds of brome, and 5 pounds of alfalfa.

The plan was given wide publicity in local newspapers, and farmers were invited to see how these experimental plots compared with nearby fields using older pasture crops. The result was a rapid shift to the mixture and further evidence that demonstration pays in extension work.

May and his local committee extended the program to include comparison of the palatability of various pasture crops grown in Clay County. With 100 percent to represent the top palatability, they ranked pasture crops in this order: Meadow fescue, 100 percent; alfalfa, 80 percent; bromegrass, 75 percent; sweetclover, 55 percent; and Reed canary grass, 20 percent.

Down in another corner of the State, another progressive agent, George Chambers, worked out his own unique plan. He established one of the first pasture-improvement 4–H projects in the Nation. In 1945, the second year, more than 20 4–H'ers had signed up for the project.

The SCS technician assisting the local soil conservation district and County Agent Chambers visited the project members early in the spring. There they discussed the pasture program with both the father and the son and helped them work out a long-term pasture-improvement program for their farm on a partnership basis.

Later these improved pasture plots were used for demonstration purposes.

Club members were scored on the following basis: 60 points for permanent pasture, including 20 for application of manure; 15 for testing soil and applying lime; 10 for applying phosphate; 10 for renovation is necessary; 5 for clipping weeds and avoiding overgrazing; and 40 points for following an all-season program.

Each year cooperating businessmen of the county arranged for recognition of the 4–H boy who conducted the best pasture-improvement program. One year a banquet was held honoring all 4–H members of the project; another year the winners were awarded war bonds at the county fair.

The boys did so well that 2 of their members were among the 70 farmers in Minnesota awarded certificates of merit at the State recognition dinner in St. Paul.

Elsewhere through the State each cooperating county agent worked out his own program to meet his own circumstances. Farmers everywhere showed interest in the project, and many now plan to improve their own pastures as a result of the demonstration given by their neighbors.

Winter grazing

Eleven farmers of White Oak community of Marshall County, Ala., have 192 acres of winter grazing crop. This is a good acreage of winter grazing crops when it is considered that the total farm land in their 11 farms is only 577 acres.

This acreage of grazing crops is composed of 60 acres of crimson clover and rye grass, 65 acres of small grain and legumes, and 67 acres of small grain alone. These farmers have 146 head of cattle, 64 head of hogs, and 11 sheep that have been grazing these crops this fall and winter when weather conditions permitted. The cattle range from small calves to mature cows; the hogs range from pigs to mature sows, and the sheep are about mature.

In fertilizing these grazing crops, 11,520 pounds P 205, 3,600 pounds K 20, and 6,080 pounds nitrogen have been used. About the first of March most of these crops were top-dressed again with 36 pounds of nitrogen per acre. The livestock were taken off the small grain and the small grain and legumes at this time. These crops were then saved for grain or hay. The crimson clover and rye grass will continue to furnish grazing until the middle of May or the first of June.

These farmers will tell you that winter grazing is the cheapest way of feeding livestock during the winter.—*W. L. Martin, Marshall County agent, Alabama.*

The rural youth shall lead them

FRANCIS MURRAY, Assistant Extension Editor, Indiana

■ Benton County, Ind., county agricultural agent, E. M. Christen, was standing at the corner of a great prairie field planted to corn and soybeans when he told me this story:

"There was a time when this land was producing 75 bushels of corn to the acre without fertilizer or any other top dressing. Our county was tops in the State as a corn producer. The soil was making its operators rich from the corn crops that came from it year in and year out. It looked as if the land would go on forever producing great quantities of fine corn. The farmers literally never had heard of soil conservation. They saw no erosion problems. Practically no one had tile ditches. The broad, flat prairie fields of black fertile soil soaked up the rainfall, and what ran off seemed to do little erosion damage.

"But there was erosion. It was stealing the topsoil, little by little. The blackish water that ran into the streams was carrying away the wealth of our land. World War I came, and the farmers cropped heavier than ever. Few people noticed any damage from erosion. Land prices skyrocketed with the prosperity that was everywhere during the war. There were farms selling for up to $400 an acre. Then the bottom dropped out. Many farmers went broke. Others were forced into a desperate struggle for existence. They began to notice the fertility going down. Still, there was little notice of what this blackish water was taking from the soil. Only shrewd and clever farmers were holding the line now, where once it was no trick at all to make money farming these acres. Farm land was selling in the county for less than $100 an acre, and there were few takers at that when the depression hit bottom.

"When the possibility of establishing a soil conservation district in the county was suggested I was willing to cooperate, but I didn't know about the farmers. I had been reading reports that our county was down in yield of corn per acre from near the top to forty-second among 92 in the State. I was aware that other counties had already cut their corn acreage to the most fertile land, and our county continued strong in corn acreage. Soybeans came into the picture as a 'soil-building legume;' but the impending Second World War turned the trend from bean-hay to beans-for-grain, so the 'salvation' became a new source of trouble in holding our topsoil and fertility. That blackish water ran deeper after each 'goose drowner.'

"I was pleased to find that our farm leaders in the county were responsive to an offer of help in working out a plan to restore the fertility of the soil that remained. When we got into the thing, we found much that could be done in reclaiming the land we once thought would be fertile forever.

"The job isn't finished by a long way, but we are making progress. You can see numerous places where we haven't got to the job of contouring and terrace building and grass waterway construction, where farmers are attempting to work out their own plans. Some of these are successful, and some are not; but the farmers see the handwriting. They have discovered the answer, and they want to apply it. But this war emergency cropping is keeping us on the jump. It's hard to talk resting land and wide grass waterways when food is needed so badly."

Youth Catches the Message

Christen's Sunday afternoon story was interrupted when a caravan of some 8 or 10 cars came into view from the north. In the lead car was County Agent Frank E. DeLaCroix who had been Christen's assistant and who was appointed 2 years ago to his job in adjoining Jasper County. Frank had learned the fine art of his trade under Christen, and he has "preached the gospel" of soil conservation in his assignment in Jasper County. Last winter the farmers voted in favor of having a soil-conservation district established in their county. DeLaCroix's crusading may have helped to sell them on the idea. They may have seen, too, results of efforts already made in their neighboring county.

DeLaCroix had gone into the county burning with a desire to see the topsoil restored to a good level of fertility and to see the erosion problem whipped. But he has employed a unique approach.

"Maybe the rural youth can take the lead in the job of rebuilding Jasper County's soil," DeLaCroix decided. Anyhow it was worth a try. His first task was to rebuild the rural youth organization which had flourished earlier but which had dropped to a total membership of around 20. Harold Schmitz, who has been a member of the group for several years, is a discharged veteran. He says it was nothing at all in prewar days to get 100 out to a meeting. But the call to arms took many of the boys from the club, and then many of the girls lost interest. Others were stymied by transportation difficulties. DeLaCroix found the club struggling for existence. By scraping up volunteer cars, pooling rides, organizing neighborhood meetings, and by much campaigning, he has helped Club President Paul Branson to hike the membership to more than 70 enthusiastic young people. Most of the boys are farm operators, and some are big-scale operators as far as Indiana farms go—up to and more than 400 acres. Wisely the leaders planned a program for the club that would merit both the commendation of the members and their elders at home.

Their monthly meetings are rotated to six different communities in the county, and the organization acts as one club instead of six or more smaller groups. One meeting each year is held in a big house on the farm where a member lives, and at this meeting there is a barn dance.

Social Recreation

That's the way the club can show a successful year. There's something new being planned for every meeting in the way of social recreation. But the big project the club has tackled started a year ago and will not be finished for another year. This is the job they have undertaken. They are painting every mail box in the county.

Town merchants staked the group with money and materials to buy the stencil material and paint. Grateful farmers, happy to have their mail boxes painted, are also donating to the fund for the job.

The Sunday afternoon tour took the members of the Jasper County Rural Youth Club to adjoining Benton County to observe early stages of a sod waterway construction that will eventually carry great volumes of water harmlessly off this sweeping prairie slope by way of a contour diversion ditch. Shown pointing is County Agent E. M. Christen, while Glen Howell, Soil Conservation Service assistant, helps hold the map.

When the rain stops work in the fields, small groups of neighborhood boys and girls don their painting clothes and hie themselves over the nearby roads, painting every mail box as they go. The job is about one-third finished now, and they hope to finish some time next year.

Voting the county into a soil-conservation district last winter has now given the young future farm owners a new idea. They want to be in on the ground floor in the soil-saving and soil-building program so they can be in the driver's seat when the war is over and the big push comes for getting the program into maximum use. That's why they wanted to take the tour into Benton County.

County Agent Christen obligingly showed them in a carefully planned tour the problems that would prove similar to their own county conditions, and he showed them how they were being solved. He explained in on-the-spot brief lectures the function of the terrace, the diversion ditch and grass waterway, control outlets, strip cropping, and all the other practices his county is employing; and, in addition, he hammered the plea across for soil-saving crop rotations to go along with the erosion-control measures.

A long trek through the prairie fields terminated at Oxford community park where the rural youth played, swam, and sang and then sat at a huge picnic table where the girls had spread great helpings of home prepared food that farm boys and girls like best.

Meanwhile, a good many routine chores back home were late getting done, but Frank DeLaCroix knows better than ever what it takes to make his rural youth group lead the way in building Jasper County's acres back up to the productive potentiality they had in the good old days.

A message to youth of Norway

■ Norway's National Association of Agricultural Clubs (the L. N. J.) celebrated their tenth anniversary last month with a rally in Oslo to which Director M. L. Wilson sent the greetings of the 4-H Clubs of America. The young Norwegians asked for information about the 4-H Clubs, as they want to join with the rural young people of this country in building a democratic peace and in using modern methods in their farming. The association is composed of 17 different rural societies.

Director Wilson wrote in part: "The enrollment lists of 4-H Club members in America are generously graced with the names of young people descendant from the hardy stock of your countrymen. We in America owe much to the sterling qualities of character that the large number of Scandinavians brought with them to our shores. And I am confident that the love of liberty, of rural life, of democratic action, spiritual values, their zeal for cooperation—as well as their initiative—hard work and intellectual achievement with which the Norwegian people are so richly endowed has had a significant influence not only on the development of 4-H work in this country but on our entire national life.

"Now the hope of mankind is turning, as though with a final effort, toward finding a democratic design for living. Everywhere there is growing awakening of the need for learning to live with one another in harmony and cooperation as a way of matching the power unleashed by physical science. And this we can do in many simple ways. As we strengthen our homes, improve the science and business of agriculture, find enduring values in rural life, and make Christian principles our code of ethics for everyday living, we move closer to a more certain way of enduring peace.

"It is toward these high goals that 4-H Clubs in America and L. N. J. in your country have marched. Now they must increase their tempo. And in so doing they will march with the confidence that in their everyday life they are making a worthy contribution to world peace.

"I know, therefore, that I speak for our entire 4-H membership, their leaders, and sponsors in extending the hope that your meeting will give increased strength and enthusiasm to the work of L. N. J. so that it may move forward in the service of all Norwegian youth in the critical but hopeful years ahead."

Visual aids important in postwar extension work

GERALD R. McKAY, Extension Visual Aids Specialist, University of Minnesota

The use of visual aids in extension teaching will be just as important in postwar farmer and homemaker classes as it was in hundreds of GI training camps during the war.

This statement briefly summarizes a survey made by the writer during the past summer. The survey covered the present and anticipated use of visual aids in the agricultural extension services in all but 10 of the United States. The term, "visual aids," was used rather than "visual education" because it seems logical that these various devices which help to make teaching easier, more effective, and more thorough are in themselves only aids to the larger total goal of education.

33 States Answered Questionnaire

A two-page questionnaire was sent to the extension editor in each State, and replies were received from those in 38 States and Hawaii. The editor did not in every case handle the work in visual aids but did have the information necessary to answer the questions which centered around three types of aids, namely, 2- by 2-inch color slides, 35-mm. strip films, and 16-mm. movies.

About 42 percent of the county agents are equipped to take 2 by 2 color slides, and more will get 35-mm. cameras as soon as they become available, according to this survey.

Most States keep a supply of slide sets in various fields already made up for the use of county agents and subject matter specialists. The number varies all the way from zero to 125 sets. Three States have none, and Pennsylvania listed 125 complete sets. One office keeps a large number of individual slides available and puts sets together as they are needed. The average number of different sets on hand is 20, and the average number of duplicates of the most popular sets is three.

Apparently there is some trend toward integrating State sets of color slides and the individual slides taken by agents for use in their own counties. That is, many agents fit their own pictures into the State-supplied skeleton sets to add local interest and bring out local facts. Only one reply indicated unsuccessful efforts in this direction. There seems to be no definite trend toward more State-made sets than county-made sets. The number of both in almost every State is on the increase.

In the States where a visual aids specialist is employed, the work of taking the slides is divided between subject-matter specialists and the visual aids man. Cooperation is the order of the day in this respect. Mounting, filing, and distributing, however, are handled under the direction of the visual aids specialist. Of 24 States which have a visual aids man, 12 indicated that he spends more time with subject-matter specialists than with agents; 8 showed the opposite to be true, and 4 indicated the time is about equally divided.

Eager To Buy Equipment

A few States have a fair amount of projection equipment, but a large majority plan for a big expansion in the field of new machines. As might be expected, the 2 x 2 slide projector is the common item with 65 percent of all agents supplied. Only 45 percent are equipped with movie projectors, and about half of these are silent ones. Comments on the questionnaire indicated a definite trend toward buying only sound projectors.

The lending of State office equipment to agents does not meet with favor in 18 of the 34 States which answered this question. However, 8 of the States do have their programs set up to allow for loan to agents, and 8 others have a plan for furnishing a limited amount of equipment to agents under certain conditions. Transportation presents the biggest problem. Subject matter specialists and express companies handle most of the shipments.

Very few States produce any film strips. Out of 35 who answered the question relative to this, only 3 had made any number, and 12 had made a few from time to time. Twenty indicated that they definitely did not make any. In those States where any work has been done, it has been handled by the regular University Photo Laboratory or by the Photo Lab in Washington. Charts, graphs, and maps are being copied on 35 mm. or 2 x 2 glass and used quite extensively as slides material. As agents become more familiar with the possibilities in this field, this type of visual aid will likely increase.

Movies Made in Half the States

Although movies are being used quite extensively in about half of the States, not much is being done in the others. Two answers in the first group suggest a circulation of 30 to 50 films per month, practically all of them being sound films. Most States do not produce movies on a very extensive scale, but there seems to be a trend toward picture production in States having a visual aids man on their staff. According to the reports, Pennsylvania, North Carolina, New York, Georgia, and Oregon are leading in producing movies within the State.

Various methods of booking and servicing films were mentioned; the most common is to have the film library of the General Extension division take care of it. The average number of films available from the State offices is 139, about two-thirds of which are USDA films. Commercial and State-produced films made up the other third. The problem of having films returned promptly seems rather general. It is handled in several States by sending a double post card with each shipment and asking that one copy be returned with the film.

Almost every State plans to expand the work in visual aids when equipment and personnel become available. The addition of a full-time visual aids man, a training program for agents, and an increased budget will be early steps in this direction. The work is now being done mostly by extension editors. One said of the visual aids work: "It is a full-time job, plus."

Another answered: "It is more than a full-time proposition, but under the present shortage of help, other activities are covered; I edit all extension publications and take pictures for both experiment station and extension, and am responsible for radio." A typical answer regarding the postwar work was: "We are planning for a big expansion at the county level, both in the use of visual aids and the taking of good photographs. Also planning for expansion in the State office."

Summarizing Statement

In summarizing the answers to the 22 questions, the following conclusions might be drawn:

1. Extension people are showing an increased interest in the use of visual aids and will expand their work in this field.

2. Most emphasis is being placed on building 2 x 2 kodachrome sets for distribution to the agents. There is a trend toward making these loan sets flexible enough so that each agent may add to the set.

3. Several States are planning to produce their own 16 mm. movies on a limited scale when personnel and materials again become available.

4. A large amount of equipment will be purchased for county use when it can be procured. The goal seems to be "a 16 mm. sound projector and a slide projector in every county."

5. Most States are trying to make provision on their staff for a full-time visual aids man.

6. Film strips are being displaced to a large extent by 2 x 2 kodachrome slides, but there still is a place for film strips in such work as photographing charts, graphs, and drawings.

7. Each type of visual aid has certain uses for which it is best adapted, but it doesn't follow that those aids for which the uses are limited are absolutely worthless and should be thrown into the discard.

8. A comprehensive training program in the use of visual aids will be provided for the agents by most State offices as soon as conditions will permit.

9. Only a limited amount of service is given to agencies outside the extension field, but this service may expand as local conditions seem to warrant.

Tractor school spark-plugs care of farm machinery

■ Maryland's first 4–H tractor school, attended by 28 leaders and 7 assistant county agents at the University of Maryland, February 4, 5, and 6, was an unqualified success. Six tractors were put into good running order. The 35 persons attending, many of whom had been running tractors for 10 years or more, said that they learned more about tractors than they expected could be taught in 3 days; and, as a result, probably 500 4–H Club members in 18 different counties this spring will be learning how to take good care of their farm-power machines.

One of the younger leaders who came to the school expecting it would be a pleasant 3-day visit with old friends confessed at the banquet on the second night of the school that he had his eyes opened to a great many things he had not known about a tractor. It wasn't all in the fuel, lubrication, cooling, ignition, and the operation of other parts of the tractor but in learning why the tractor should be handled well that he got his real lessons. That night he already had plans to go back to his home county to teach tractor care to five different groups of farm boys.

In these days of old machinery and worn-out tools, keeping the farm-power unit in good shape proved to be a really interesting work unit for the 4–H leaders. Under the direction of A. V. Krewatch and Guy Geinger, extension agricultural engineers, and Charles R. Lund of an oil company, the boys absorbed grease in their hands and ideas and expert knowledge in their heads.

Tractor schools similar to that in Maryland are being held in 8 Northeastern States, 14 Central States, and some Southern and Western States.

In past years, a farmer who loved his team of horses worked them hard but took good care of them and enjoyed his outdoor jobs with these willing workers. The young farm boys of today are growing up in a world where farm tractors take the place of horses and where they in turn will learn to take good care of machinery that plays a vital part in food production today.

One student explains to others the lubrication system

Among Ourselves

■ COUNTY AGENT A. V. HAY of Albany County, Wyo., has received the community service award for outstanding service to the community.

"Without Mr. Hay, agriculture in Albany County could not have carried on during war years," was written on one nomination coupon for County Agent Hay.

A letter written on his behalf by County Farm Bureau describes his year's work, made even more difficult and diverse by wartime pressures and regulations. It said:

"With a regular full-time job on his hands, he has yet found time to serve on the rationing board and to be the backbone of the community garden project. He has helped actively in every major drive. He has served as a member of the Farm Bureau Executive Committee and as an active member of the County AAA Committee. He was instrumental in the establishment of soil conservation districts for this area and served as secretary of the War Board until that group was superseded by the USDA Council, of which he has been made president.

"But his major service to the community has not been through the organizations he has headed or the clubs in which he has taken an active part. His greatest service has been in the modest, cheerful way in which he has given his time, his help, and his advice wherever and whenever needed.

"No matter whether it was a puzzled 4–H Club child, a point-frantic housewife, a tire and gasolineless car owner, a ranchman with a subsidized headache or an income tax tangle, a homesick Navajo sheep herder, or an imported Mexican national, they somehow all looked to Art to iron out their difficulties. And he did. Each was met with the same kindly attention and friendly help. He was never 'too busy' or 'too tired' . . ."

A. V. Hay was graduated from the University of Illinois in February 1924. He first worked in Hancock County, at Carthage, Ill., where he was assistant farm adviser in the Extension Service for 2½ years. He later became manager of the Farm Bureau cooperative for 1½ years.

He came to Wyoming in 1928 when he was appointed county agent in Weston County. After he had served in Weston County for 8 years, he came to Albany County where he has worked for the last 10 years.

Major projects which County Agent Hay has emphasized during the last year are labor, 4–H Clubs, community gardens, cattle parasite control, and soil conservation districts.

"We are planning to do more 4–H Club work this year than ever before," said Mr. Hay in a recent discussion of his plans for next year. "We are also beginning a program on weed control work in Laramie districts. This will be a community-wide project on the eradication of Canada thistles by using 2,4–D with a power sprayer." In a lighter vein, he added: "I might even do a little fishing this summer."

■ PAUL M. DRAKE was named assistant agricultural agent in Park County, Wyo. He received his bachelor of science degree from the University of Wyoming in 1942 and has recently been discharged from the Army Air Corps.

■ MILDRED B. MURPHEY has been appointed State leader of 4–H Club work in New Jersey, and former Army Lt. Louis Gombosi, the assistant club agent leader in charge of the older youth program.

Miss Murphey, who has been serving as acting State leader of club work for the past 2 years, has been a member of the New Jersey Extension Service staff for more than 20 years. During that time she has been a district home agent and State leader of home agents. She is a graduate of Boston University.

Mr. Gombosi, recently released from the Army after 42 months of service as a member of the American Commandos, Fifth Ranger Infantry Battalion, graduated from the State College of Agriculture in 1941 and did further work in vocational guidance at Columbia University. He was born and reared on a dairy and poultry farm at Baptistown and was a 4–H Club member and junior leader for 5 years before he entered college.

As a member of the Commandos, Lieutenant Gombosi saw active service in four major campaigns in the European Theater of Operations. He was awarded the Silver Star by Gen. George Patton and the Presidential Unit Citation of two oak leaf clusters. At the conclusion of hostilities he took courses at the Army Intelligence and Education School, Paris University, and then returned to his battalion to establish vocational courses in mechanics, agriculture, radio, and languages.

■ PAULINE BUNTING was appointed home management specialist in Wyoming. She succeeds Mrs. Ellen Bramblett, who has resigned. Miss Bunting was graduated from the University of Wyoming with the degree of bachelor of science in home economics in 1926. She served as home demonstration agent in Lincoln and Big Horn Counties for a total of 8 years and has worked as assistant State club leader of the Montana State College for the last 13 years.

Tribute to Norma Brumbaugh

NORMA M. BRUMBAUGH, State home demonstration agent, was honored by the Oklahoma home demonstration agents at their annual association dinner meeting held in Stillwater, November 8, 1945.

They presented her with a gift of silver as an expression of their appreciation for her 25 years of loyal service to the extension organization in Oklahoma.

In recognition of her service, one of the home demonstration agents paid tribute to Miss Brumbaugh as a leader who sees the goal far ahead but never forgets to keep one hand in the hand of her followers to lead them on toward that distant goal which they may not see.

It was during the First World War emergency that Miss Brumbaugh came into Extension Service. In June 1920 she was appointed assistant State home demonstration agent. She was responsible for work with 4–H Clubs—particularly in food preparation with girls. August 1, 1921, she was appointed district agent; and on December 11, 1926, she was promoted to acting State home demonstration agent. In July 1927, she became State home demonstration agent, in which capacity she now serves.

Norma M. Brumbaugh

Under her supervision the home demonstration program in Oklahoma has grown from the early tomato clubs and the canning of vegetables and fruit to a well-balanced farm and home program. The program has been extended to all counties in the State of Oklahoma, with a home demonstration agent in each county and an assistant in about one-fourth of the counties.

■ GLADYS OLLER, who has worked as home demonstration agent in Fremont and Laramie Counties, Wyo., and assistant State 4–H Club leader from 1935 until 1945, has been appointed home demonstration agent in Natrona County. Miss Oller completed a course in occupational therapy work with the United States Army during 1945.

■ ROBERT MYLROIE was named assistant county agent in Big Horn County, Wyo. He was graduated from the University of Wyoming in 1938 and was discharged a lieutenant colonel from the Army Air Corps. Before he entered the Army, Mylroie was assistant county agent in Fremont County and county agent in Weston County.

■ WILLIAM CHAPMAN, who was county agent in Weston County for 6 years before he went into the Army, was named county agent in Converse County, Wyo. Mr. Chapman was graduated from the University of Wyoming in 1935.

1,006 women write feature stories

■ Winners in the State Feature Story Writing Contest sponsored by the West Virginia Farm Women's Council were announced recently from the Agricultural Extension Service, West Virginia University. The contest met with enthusiastic response, stories having been submitted from 37 counties by 1,006 women. A total of 1,185 stories were written by these entrants. Berkeley County had the largest number of entries, with 199 women submitting 207 stories; Mercer County had 99 stories, and Pocahontas County had 95.

Stories were written by both young and old, several stories being from women around 20 years of age and ranging to one written by a woman 82 years old. Some of the women have been in club work for 20 to 25 years; others have belonged to their club only 1 or 2 years. A few stories were by farm women who are not club members.

Judging of the entries was on the basis of the choice of subject, its human interest, and description of the actual practice put into effect, whether written in simple, concise, and forceful style, and whether or not it was complete and accurate.

Many of the stories were exceptionally well written, showing originality of expression and a real ability in giving a clear description of the home or community activity used as a theme. The stories as a whole reflected a genuine sincerity in the subject about which they centered.

These stories revealed that homes and communities throughout the State have derived much benefit from farm women's club work and home demonstration work. They also showed that many county-wide and community-wide projects have been promoted by farm women's clubs, bringing about better rural living for all families in the area whether or not they are members of the farm women's club. The fact that 499 women wrote on the subject of What Club Work Has Meant to Me Personally is evidence of its benefit to them as homemakers and in their own personal growth and development.

Most of the counties held county contests to select the winners to be entered in the State contest. First-, second-, and third-place winners in each class were selected for competition in the State contest.

Flashes
FROM SCIENCE FRONTIERS

A few hints of what's in the offing as a result of scientific research in the U. S. Department of Agriculture that may be of interest to extension workers, as seen by Marion Julia Drown, Agricultural Research Administration, U. S. Department of Agriculture.

Triple-Purpose Spray

■ Because 2,4–D cut down the rate of growth of desirable grasses in pastures where it was used to kill weeds, scientists of the Bureau of Plant Industry, Soils, and Agricultural Engineering tried a spray mixture containing the weed killer, a fertilizer, and a fungicide. The fertilizer was used to make the grass resume growth rapidly. The fungicide, though not needed where the experiment was made, was included to test its effect on the grass and on the effectiveness of the other ingredients of the spray.

For the fertilizer, the experimenters used enough urea, a common source of nitrogen, to provide 60 pounds to the acre. Within a few days after application, the grass took on a bright green color. The yield of herbage increased 40 to 131 percent in 2 months, whereas the weeds were killed as effectively as by 2,4–D alone. In one experiment in which 90 pounds of urea to the acre was used, however, the grass was severely injured. Further tests are to be made to determine whether the fungicide—Fermate—used in the spray mixture will kill fungi as well when used alone. It was shown that the Fermate did not interfere with the action of either the 2,4–D or the urea.

The results of these experiments indicate the probability that this spray combination will be an economical method of doing three jobs at once.

Run-around for Roundworms

■ An effective drug for use against roundworms, or ascarids, in swine is sodium fluoride, the Bureau of Animal Industry reports. Dosage with this chemical eliminates about 95 percent of these worms, whereas other known drugs are only about 50 to 75 percent effective. Sodium fluoride, widely used as an insecticide for household insects, especially roaches, is a poison; but in very small quantities it can be used safely for pigs.

The treatment found most efficient in the Bureau's experiments consisted in including in the pigs' feed, for 1 day only, 1 part by weight of sodium fluoride (technical grade) to 99 parts of dry ground feed. If the animals to be dosed are not accustomed to this type of feed, they may be given some of it without the sodium fluoride for a day or two before they receive the medicated feed. The quantity recommended is safe because the pigs are not likely to eat too much of the medicated feed; and, if they do, they tend to vomit to excess.

How To Be a Home Tailor

■ A popular new bulletin gives directions for tailoring a woman's suit that can be easily followed. Any woman who has had experience in other types of sewing should be able to give a suit that custom-made look with the aid of Miscellaneous Publication 591, How to Tailor a Woman's Suit, issued by the Bureau of Human Nutrition and Home Economics. Many women who are used to making dresses and other clothes are afraid to tackle a suit. Tailoring is, in fact, not a job for the amateur; but a woman with sewing experience and patience will find it easy to follow the simplified professional tailoring techniques presented in this pamphlet. Single copies may be obtained from the Office of Information, U. S. Department of Agriculture, Washington 25, D. C.

Progress of Bee Research

■ The importance of bees as pollinators of many valuable field and tree crops has been brought to public attention more than ever in the last few years. The honeybee is the only pollinating insect that can be obtained in any desired numbers and placed where needed. Recent studies by the Bureau of Entomology and Plant Quarantine in Utah, in cooperation with the State experiment station, have shown the importance of honeybees in pollinating alfalfa in that State. Wild bees that are of value as pollinators were found to be so widely scattered that they could not be depended upon for pollinating the commercial crop.

Studies on resistance to the serious bee disease, American foulbrood, have been accelerated through recent progress in the technique for artificial insemination of queen bees. The length of time between emergence of the queen and egg laying has been reduced from 30 days to less than 15½ days. Colonies headed by artificially mated queens and selected drones showed a higher rate of resistance to foulbrood than those of naturally mated queens.

In studying the cause of foulbrood, *Bacillus larvae*, it was found that this organism produces an antibiotic—that is, it kills or inhibits the growth of a number of other bacteria, including those that cause brucellosis, tuberculosis, and other infections.

Another discovery that has immediate practical application is that enzymes produced by *Bacillus larvae* hydrolyze milk. Based on this reaction, a test for field use for determining American foulbrood has been developed. When suspected material is placed in milk at 70° F., curdling occurs in less than 1 minute if the disease organism is present. Hydrolysis of the curd then begins and in 10 minutes is usually completed, leaving a watery yellow residue. Equipment for making this test is very inexpensive.

■ The Hamburg Home Demonstration Club, Chambers County, Ala., has started a club library. Mrs. E. B. Coggin started it by lending 12 books for 1 year. Each club member has been asked to donate a book to the library. A librarian will check books in and out in the usual manner.

We Study Our Job

What is the proof of extension teaching?

All extension workers hope their work will be successful. Often they wonder; they have no criteria by which to judge their success or failure.

As extension workers study their job they are coming to the conclusion that "a change in behavior" is the most satisfactory criterion by which to determine the results of their activities. This recognition naturally leads them to ask, "What change in behavior do we desire to bring about?" This change in how farm people carry on their work is the objective of their extension program.

One of the most difficult problems confronting an extension worker is to devise a valid, reliable, and simple method of evaluating or measuring this change in behavior. To relate an extension activity to a desired outcome should be a part of all extension program-planning.

Many extension agents are using such evidence as attendance at meetings, number on mailing list, and number of office calls and farm-and-home visits as evidence. These are satisfactory evidences of extension activities but generally are not evidences of desired change in behavior. Unless the farm people change their ways of doing things the extension worker has not taught effectively.

Every good extension plan should provide for a measurement of accomplishments. No piece of extension work is really complete until the accomplishment has been checked and accurately recorded. Without reliable facts as to past accomplishments upon which to base a plan of action for the future, progress in extension teaching is bound to be slow and frequently unsatisfactory.

Narrative and statistical reports are not ends in themselves, but just one device for improving the judgment of the extension worker himself, his superiors, his successors, and other professional workers. Good records are essential in determining how the plans for the year have been carried out and in revising plans for the year ahead.

Other devices, such as the survey by farm-to-farm interview, spot-checking, the opinion of a group of leaders, census and trade data, all help to improve the judgment of the extension worker when he evaluates the success or failure of the year's activities.

The subject-matter specialist generally has the responsibility of determining these measuring devices. He has to keep in mind two other groups in addition to himself. It is a part of his job to devise a plan of recording change in behavior that will not only improve his own judgment but also that of farm families and of county extension workers.

If the farm families are not given some device whereby they can determine for themselves the satisfactions coming from the improved practice advocated, they are not likely to want to keep a record or a report. Similarly, county extension agents also must know how to get information from these family kept records or reports if they are to help additional families to adopt the practice.

Each specialist will probably have to decide at what point in the evolution of the farm family's thinking he wishes to measure:

1. What people know.
2. What are their attitudes.
3. What action they took.
4. Was it satisfactory?
5. Did it become a habit?

The school teacher may desire to measure what the pupils know. The public opinion polls measure attitudes. Changes in behavior taken during a certain year as result of extension activities are measured in our annual reports. However, when the cultural anthropologists study human behavior they make a record of the habits, customs, and mores of the peoples.

Both farm families and county extension workers have a right to know what evidence to look for to prove that the desired change in behavior is going to be satisfactory to them.—*Eugene Merritt, Extension Service.*

4–H potato club wields wide influence

One of the questions frequently put to extension workers and also one that extension people often ask themselves is: Does the work of 4–H Clubs have a wider influence in a community than among the immediate members of the clubs and their parents?

An answer to that might be found in a thumbnail history of the Wide Awake 4–H Potato Club of Dawson County, Mont.

This active and enterprising club has just completed 15 years of certified seed potato production, and during that time it and other 4–H potato clubs have produced seed stock valued at more than $10,500 with profits to club members totaling more than $6,600 according to O. A. Lammers, county agent.

But actually the benefits of this one project have been more widespread than club records alone indicate. Lammers estimates that as the result of this one project farmers not only in Dawson County but in adjoining counties have become enthused about raising high-quality seed potatoes. In Dawson County alone there are more than 100 acres of certified seed potatoes grown on a commercial basis. The largest commercial grower in the county is Frank C. Eaton. As might be suspected, Eaton served his apprenticeship in the Wide Awake Club.

Looking beyond the borders of Dawson County, Lammers estimates that almost 100 percent of the potatoes grown in communities adjoining the county can be traced back to the original certified stock of this 4–H Club project.

In the 15 years since the club was started by H. F. Purdum and Don Gibson, farmers in the Clear Creek community, the Wide Awake Club has not missed a year of production and Don Gibson has been either club leader or assistant club leader each of those years. In 1945 two clubs in the county had 2.9 acres of certified seed valued at $547.

The once-over

Reflecting the news of the month as we go to press

TODAY'S HOME BUILDS TOMORROW'S WORLD, and so the problems of today's home are getting careful consideration during Home Demonstration Week. The observance varies from State to State, but the family is the keynote.

THREE GENERATIONS of a Georgia home demonstration family are being featured, while in Connecticut a two-State quiz between a Massachusetts and a Connecticut home demonstration family will bring out the high points in their home demonstration work.

GRATITUDE for the things home demonstration club work has brought to Texas homes induced the women to give some special Home Demonstration Week gift to their fellow club members in the Philippines and to families in Europe and the Far East. Clubs are sending to the Philippines one or more cotton garments, bath towels, and feed sacks (with needles and thread attached) for each member of the club. These are being sent to Miss Presentacion Atienza, in charge of home demonstration work there, who received some of her training in Texas. Clubs are also giving one or more cases of canned food for the hunger areas of the world.

FAMILY NIGHT with recreation, supper, and short program are features of Home Demonstration Week in Hawaii. In both Hawaii and Michigan, as well as other States, the annual achievement days are being held during the week of May 5–12.

PIONEERS in home demonstration work are being honored in many States. Dr. Jane McKimmon, the beloved matriarch of home demonstration work in North Carolina, and Dr. Ruby Green Smith, of New York, are among them. Dr. Smith retires from active service on June 30. During the First World War in 1918 she was called to New York to mobilize the homemakers groups for wheatless days, sugar rationing, and other plans for food conservation, and became the State leader of home demonstration agents. Another veteran worker honored is the home demonstration agent in Nassau County, N. Y., Adelaide A. Barts, who has the longest service record in New York State rural areas.

TRAVELING CARAVANS have marked the spring season. The Washington State exhibit toured the State from January to March with the theme, "Guides to Successful Farming." The total attendance was approximately 41,000. The food preservation exhibit had a carnival motif. On a gaily colored, moving, and well-lighted merry-go-round were samples of good canned food and spoiled and discolored canned food found in the local county. On the ferris wheel were samples of good freezer locker containers. Previous to the exhibits, leaders were trained by the specialists or the local agent to stand by the exhibit on the demonstration day and explain it to those attending.

FLYING FARMERS are coming to the front. Colorado's first rural aviation conference will be held on July 16. Air-minded Iowa farmers held their first State-wide flying meeting on March 18 at Iowa State College. Emphasis was on the development of permanent farm landing strips and the promotion of safe flying. Both States are planning to send delegates to the first annual convention of the National Flying Farmers Association at Stillwater, Okla., August 2.

4–H RURAL LIFE SUNDAY observance on May 26 uses as a theme "Serving as citizens in maintaining world peace." The 4–H Clubs in many communities are taking part in the church services. They are emphasizing their 4–H Food for Famine Relief Program, recognizing what their sharing now may mean in world peace.

FOR LONG AND CONSCIENTIOUS SERVICE three Pennsylvania county agents were recently honored by their county people:
J. H. "JACK" KNODE, county agent of Franklin County; J. P. "Jim" Winslow, county agent of Jefferson County; and Ellwood H. "Fred" Fulton, county agent of Washington County, all started their present extension positions early in 1921.

Winslow and Fulton are graduates of the Pennsylvania State College. Knode, native of Maryland and graduate of the University of Maryland, started as a county agent in that State before moving across the Mason-Dixon line 25 years ago to Franklin County, Pa.

At his recent annual meeting which turned into a personal testimonial for him, Knode was presented with a substantial purse by his people and a traveling case by his fellow extension workers. Washington County farm folk and others gave Fulton a handsome gold watch. His coworkers had a brief case for him. Perhaps suggestive that there should be less strenuous days head, Winslow was presented with an inviting-looking easy chair, also a certificate of appreciation. Fulton's office secretary, Mrs. Caroline Mayers, also was honored for 25 years of service and received an attractive handbag from the Washington County Agricultural Extension Executive Committee.

All three agents were cited for their community leadership as well as for their professional work with farmers in which development of leadership among their farmers has been one of their main accomplishments.

EXTENSION SERVICE REVIEW

Published monthly by direction of the Secretary of Agriculture as administrative information required for the proper transaction of the public business, and with the approval of the Bureau of the Budget as required by Rule 42 of the Joint Committee on Printing. The REVIEW is issued free by law to workers engaged in extension activities. Others may obtain copies from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. at 10 cents per copy or by subscription at $0.75 a year, domestic, and $1.15 foreign. Postage stamps are not acceptable in payment.

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WASHINGTON 25, D. C.